VII. *Description of several Marine Animals found on the South Coast of Devonshire. By George Montagu, Esq. F.L.S.*

Read December 7, 1802.

As a partial residence for some years on the coast of South Devon, has given me an opportunity of more immediately turning my thoughts on the animal productions of the sea, so my researches, in this confined coast of that unbounded and immeasurable tract, have convinced me how little is yet known of the hidden treasures of the deep.

In pursuit of my first object, that of making myself acquainted with all the *British Testacea* and their animal inhabitants, as far as possible, I soon discovered that much remained to be done in that branch of natural history; having with diligent search and indefatigable attention added nearly double the number of species to those already given by any author, as indigenous to our coasts.

In the different modes which were adopted to obtain these objects, and that mostly under my own eye, it was not possible to examine the mass of matter which was occasionally forced from the bottom of the ocean, without having the attention diverted by the singularity and beauty of the wonderful variety with which that element is replete; and I soon discovered that in the *Crustacea* and *Mollusca*, as well as *Testacea*, the British Fauna, and, perhaps, natural history in general, especially with respect to the smaller marine animals, are far from being arrived at maturity.

Amongst the former, the genus *Cancer* seems to be much more numerous in its species than has been generally imagined; and

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while some have been described as mere objects of the microscope, others of superior size can be supposed only to have escaped notice from locality. In this genus I could add many to those already described as English, the greater part of which appears to be entirely new, or, at least, such as I can find no synonyms for, by the laconic style of most general writers on natural history.

From these I have selected figures and descriptions of six of the most curious.

Of the *Oniscus* there also appear to be many non-descript species, especially amongst the more minute; but I have only selected two for the present occasion: these, as well as those of the preceding genus, are figured only by outlines, as sufficient to elucidate this description.

The *Monoculus* is another tribe of insects which are sufficiently numerous both in fresh and in sea water; but it is somewhat extraordinary, that, out of the species already enumerated by Müller and others, not above ten or twelve are marine: to this division, therefore, many might be added; but as these are only microscopic objects, I shall forbear touching on them at present.

Of the *Intestina* I shall give descriptions only of two species of *Gordius* and one *Sipunculus*: this last, and one of the former, appear to be entirely new; the other so little known as to have been omitted by later writers. These genera are at present very small; one containing five, the other only two, species: the additional ones described possess such strong specific marks of distinction that figures are not required.

To the *Mollusca* tribe a great deal might be added; many of which, from their extreme beauty, elegant and complicated structure, claim no small share of attention and admiration.

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In this class there are many which seem to vie with each other to astonish the beholder, by the superabundant beauty that seems to be thrown away in the fathomless deep, where, doubtless, thousands of their congenera will ever remain in secret, and never come under the scrutinizing eye of the naturalist.

Amongst this tribe, I trust, one species of *Laplysia* may be added to the very few belonging to that genus; for although it does not exactly correspond with all the Linnæan characters, yet it cannot with equal propriety be placed elsewhere.

Of the *Doris*, figures of five species are given, some of which are certainly new; the others, of which doubts may be entertained, have either never been described as English, or no correct figures of them have ever come to my knowledge.

The genus *Amphitrite* might possibly afford more than one new species; but, as many of these animals inhabit *Testacea* and *Subtestacea* (if the expression may be allowed), the *Sabella*, this may be considered, with the *Nereis* and *Terebella*, as broken genera; for certainly the animals and their cases, or tubes, should go together, and not have different places allotted to them in the system of nature.

If, therefore, the genus *Sabella* is admissible in the order *Testacea*, its several animal inhabitants, like those of real shells, would become a secondary consideration, and serve only as marks of specific distinction. But in this case, that genus should be pruned of all the parasitical branches that have been intruded upon it without reason; I mean the numerous cases of the larvæ of subaquatic insects, or those of the *Neuroptera* order, such as *Phryganea* and *Ephemera* produced in the fresh waters of Thuringia, and equally plentiful in England.

The figure of one species only is herewith given, and it appears to be new; at least no books in my own library, or

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those of my friends within my reach, possess, in figure or description, any thing representing the object in question.

The *Nereis* is a very numerous class, and, doubtless, a variety of new species might be added; but the great difficulty of defining the distinction of some of those already described, makes it still more difficult to determine what might be added: I submit, however, the description of four, whose specific marks are sufficiently strong to induce me to believe that they are new.

To this list of marine animals I shall only add one other, and that of the genus *Asterias*.

In this genus I have not been able to discover much new matter, but am inclined to believe the species, at least those of British origin, have been already multiplied beyond its natural limits; as, no doubt, several described by Borlase, and afterwards by Pennant and others, for distinct, (upon the authority of the former,) are only varieties of a single species, the *A. aculeata*.

The one which I have described is of so extraordinary a growth, with respect to the disproportion between its arms and body, that it cannot be confounded with any other species, and I suspect has not been described; at least nothing like it has come to my knowledge.

Having thus enumerated the subjects described and figured in the accompanying sheets, I beg leave to submit them, with diffidence, to that Society of which I have the honour of being a member; not doubting but the efforts of an individual to elucidate any part of natural history, and in particular that of his own country, will be received with those indulgences to which a remote situation from the metropolis and vortex of knowledge may in some degree entitle him, as few private libraries are capable of affording sufficient information on the various subjects so necessary to the natural historian.

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The honourable Society may, however, be assured of the accuracy of the outlines represented on the annexed Tab. VI., which were taken by myself; and may equally rely on the faithful representations of the drawings of Tab. VII., which were taken from the living animals by an ingenious friend, whose merit of execution is not more conspicuous than strict attention to character.

Cancer rhomboidalis.

Tab. VI. Fig. 1.

With an uneven subrhomboidal thorax, destitute of spines, but furnished with three large tubercles on the fore part, and two others near the tail: front a broad thin concave plate, projecting into a long sharp-pointed proboscis: antennæ two, setaceous, longer than the proboscis: eyes vastly large, prominent, reticulated, pedunculated, nearly half the diameter of the thorax: arms large in proportion, smooth; on the first joint beneath a hooked spine, turning inwards; fangs toothed: legs eight, subulate; a long spine on the first joint of each, underneath: tail nearly as long as the body, slender, cylindric-depressed, formed with five joints; the end truncated, hirsute: colour, when alive, light olive-green.

Length, from the point of the proboscis to the end of the tail, a quarter of an inch.

Found amongst *Sertularia*, on the back of *Cancer dodecos*.

Cancer maxillaris.

Tab. VI. Fig. 2.

With a subcylindric body of six joints, the anterior one largest; front armed with large, strong porrected jaws, concave above,